Supplementary Materials

Table S1: Global EPR and LMS statistics of all the study area coastline change rate (m / yr) during (1989–2018) period

| Zone	Zone I			Zone II			Zone III	
Subzone	Karachi West	Karachi South	Karachi East	Mirpur Sakro	Keti-Bandar	Ghorabari	Kharo-Chhann	Shah-Bandar
No. of transects	135	69	13	385	122	137	106	272
Mean progressive shoreline change rate (+)								
EPR	4.34	12.48	9.88	12.12	13.06	13.72	7.53	11.67
LMS	4.05	10.67	7.99	12.67	12.15	13.29	11.96	11.05
Mean regressive shoreline change rate (−)								
EPR	−4.32	−6.93	−14.94	−20.88	−21.17	−19.27	−29.30	−25.43
LMS	−3.50	−4.17	−4.17	−19.03	−19.98	−19.98	−27.77	−27.46
Min progressive shoreline change rate (+)								
EPR	0.00	0.00	0.00	0.00	1.65	0.90	2.17	0.14
LMS	0.00	0.02	0.00	0.00	0.16	0.53	0.68	0.34
Min regressive shoreline change rate (−)								
EPR	−62.21	−55.21	−61.53	−62.24	−61.25	−59.42	−62.12	−62.12
LMS	−64.45	−74.59	−74.59	−64.45	−72.66	−72.66	−64.45	−62.36
Max progressive shoreline change rate (+)								
EPR	53.02	59.77	58.66	51.51	37.18	43.16	28.76	53.96
LMS	63.79	51.09	51.09	56.17	27.39	51.09	28.64	28.64
Max regressive shoreline change rate (−)								
EPR	−0.12	−0.17	−0.01	−0.14	−0.77	−0.77	−0.04	−0.09
LMS	−0.02	−0.09	−0.02	−0.14	−1.87	−0.93	−0.19	−0.19
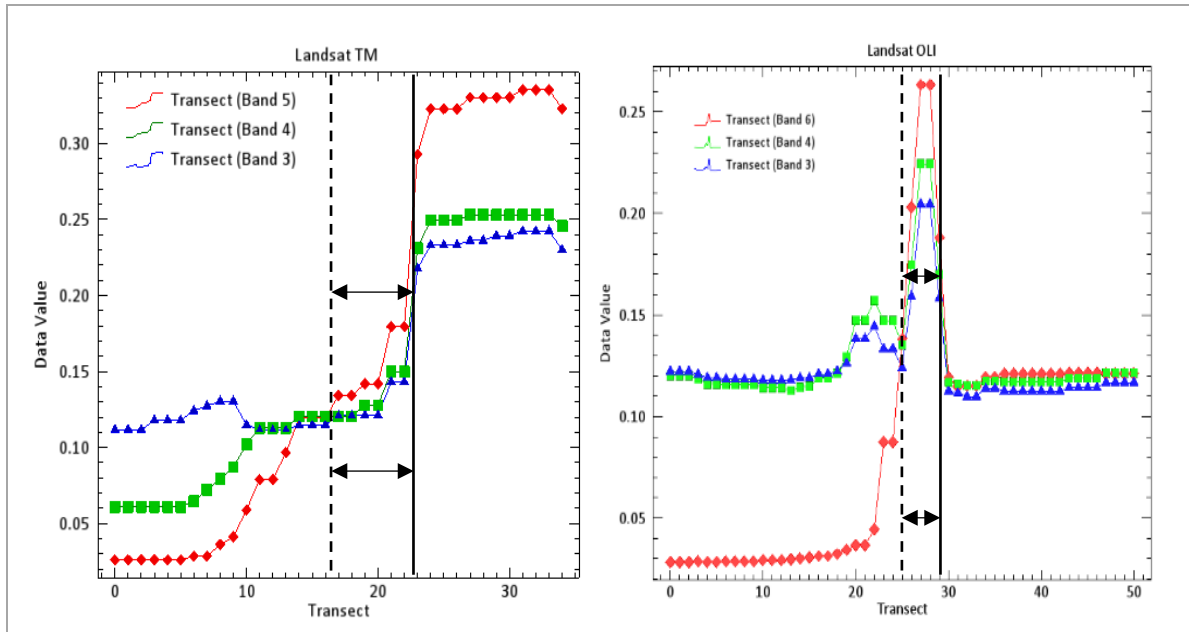
Figure S1: Spectral responses of coastline configuration. Dotted lines show the location of the instantaneous coastline whereas the solid lines mark the high tide coastline, delineated along the sea-land boundary of Sindh Coast (left to right).
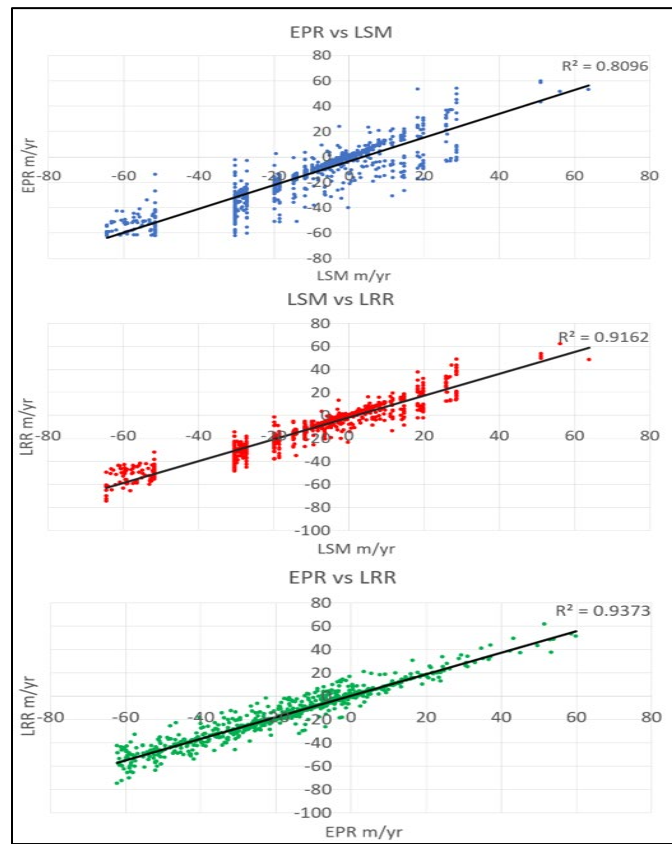

Figure S2. Comparison of coastline change rates (m/year) obtained by different statistical methods is presented on right, (a) EPR vs LRR; (b) EPR vs LMS; (c) LRR vs LMS for the overall Sindh coast. *Note*: EPR, end point rate; LMS, least median of squares; LRR, linear regression rate.
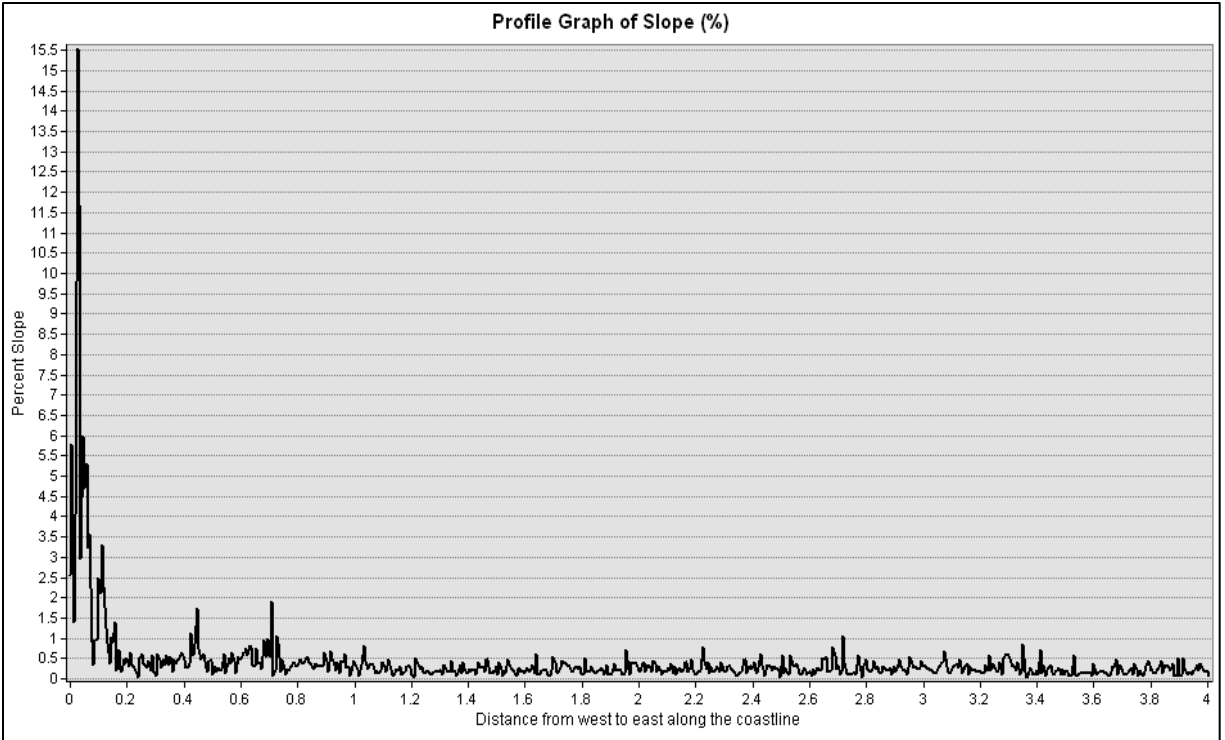
Figure S3. Plot of percentage rise measured for the longitudinal profile of Sindh Coast (unit: km). Slope (percentage rise) varies from 15.5% in the west near Ras Mauri to below 0.5% near Sir Creek. Slope percentage is below 1.1% for almost the entire IDR region.
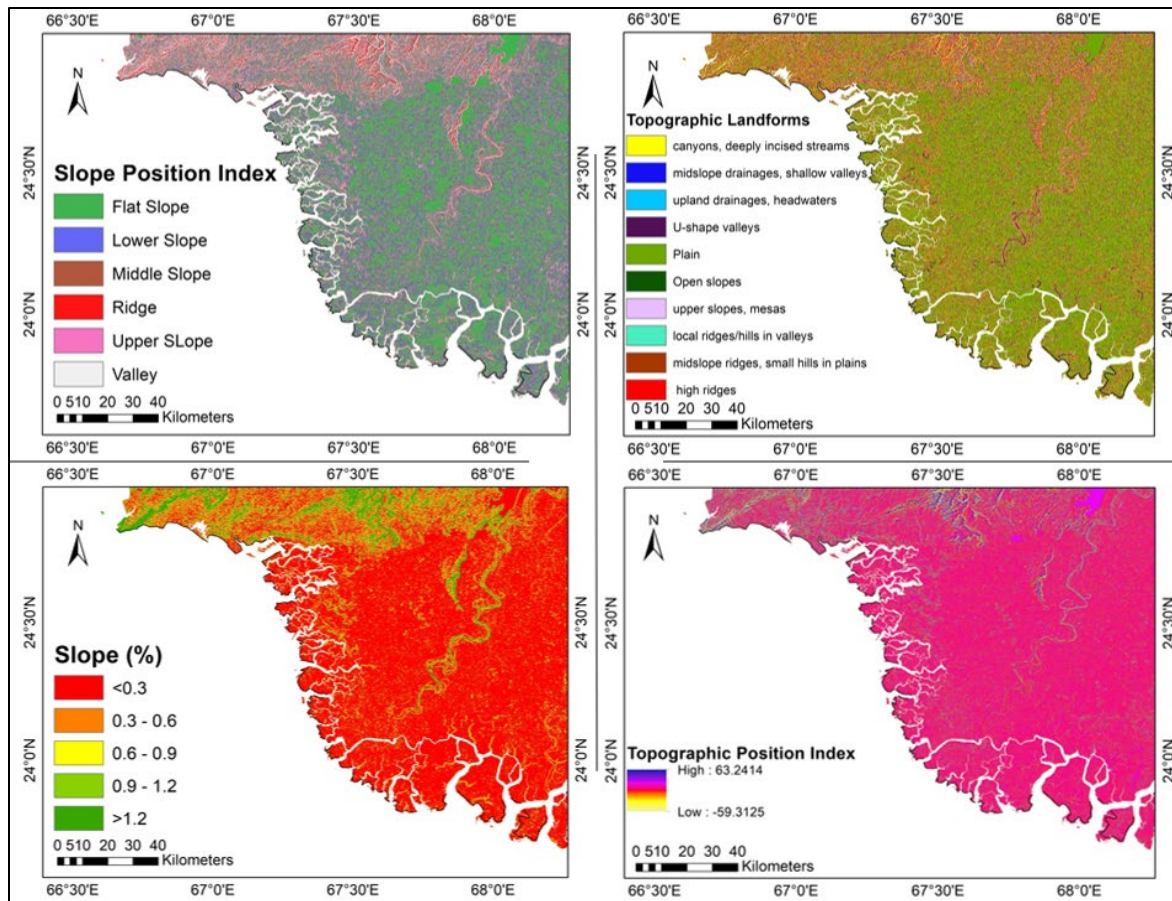
Figure S4. Slope percentage map of the Sindh coastal region. Black line marks the areas of coastline for which profile graph analysis is done and give below.